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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/812,783	03/15/2001	Seiichi Nakamura	04329.2535	9959

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EXAMINER

CZEKAJ, DAVID J

ART UNIT	PAPER NUMBER
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2613

DATE MAILED: 06/30/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/812,783

Applicant(s)

NAKAMURA ET AL.

Examiner

Dave Czekaj

Art Unit

2613

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-19 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-19 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 15 March 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. ____. |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date <u>2, 3</u> . | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

Specification

1. The disclosure is objected to because of the following informalities:

On page 12, line 25, the examiner understood "encoder 404" to be "encoder 304".

On page 14, line 18, the examiner understood "encode module 304" to be "encode module 502".

On page 15, line 22, the examiner understood "step S225" to be "step S226".

On page 18, line 4, the examiner understood "thee" to be "the".

On page 19, line 19, the examiner could not find input frame 502 in the corresponding figure.

On page 20, line 17, the examiner understood "step S225" to be "step S236".

On page 27, line 25, the examiner understood "module 703" to be "module 705".

On page 29, line 30, the examiner understood "target frame rate 80" to be "target frame rate 802".

Appropriate correction is required.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States

only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 1-3, 5, 7-9, 12-14, and 16-19 are rejected under 35 U.S.C. 102(e) as being anticipated by Hasegawa (6751405).

Regarding claims 1, 12, and 17, Hasegawa discloses an apparatus that relates to a video recording apparatus in which compression of video is performed by a software process (Hasegawa: column 1, lines 6-10). This apparatus comprises "coding video data" (Hasegawa: figure 1, item 4, wherein the video compressing portion or encoder codes the video data) and "controlling the coding to maintain a predetermined frame rate" (Hasegawa: figure 1, items 1 and 2, wherein the timer and frame drop control portion control the coding, column 7, lines 1-11, wherein the predetermined frame rate is 1 GOP (15 frames) per 0.5 seconds).

Regarding claims 2, 8, 13, and 18, Hasegawa discloses "detecting the processing time required from the coding and controlling the coding based on a detected processing time and the predetermined frame rate" (Hasegawa: figures 1-2, column 6, lines 30-64, wherein detecting the processing time for encoding is the process of initiating a timer before the compression and stopping the timer after compression, controlling the coding is the process of dropping frames so the predetermined frame rate is sustained).

Regarding claims 3, 9, and 14, Hasegawa discloses "controlling a motion vector detection in the coding" (Hasegawa: figure 1, item 3, wherein the motion vector detection is performed by the motion detecting portion, column 6, lines 10-

14, wherein the controlling is controlling the motion detecting portion to perform the process of dropping frames).

Regarding claims 5 and 19, Hasegawa discloses "filtering the video data prior to the coding wherein the controlling comprises controlling the filtering so that the predetermined frame rate is maintained" (Hasegawa: figure 1, item 1, wherein the filter is the frame drop control portion which serves to drop, or filter, frames so that a frame rate is maintained).

Regarding claims 7 and 16, note the examiners rejection for claims 1 and 5.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 4 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hasegawa (6751405) in view of Komiya et al. (6192078), (hereinafter referred to as "Komiya").

Regarding claims 4 and 10, note the examiners rejection for claim 1, and in addition, claims 4 and 10 differ from claim 1 in that claims 4 and 10 further require the controlling to comprise controlling a search range or search precision of a block search in the motion vector detection. Komiya teaches that controlling the search range of a block search improves motion vector detection precision

(Komiya: column 3, lines 57-64, wherein the controlling is selecting the small area, the search range is the search area). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to take the apparatus disclosed by Hasegawa and add the search area control taught by Komiya in order to obtain an apparatus that more precisely calculates motion vectors.

6. Claims 6, 11, and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hasegawa (6751405) in view of Kawahara (6393393).

Regarding claims 6, 11, and 15, note the examiners rejection for claim 1, and in addition, claims 6, 11, and 15 differ from claim 1 in that claims 6, 11, and 15 further require detecting a load of the CPU and controlling the coding based on the load. Kawahara teaches that knowing the load of the CPU allows for optimal grouping for encoding (Kawahara: figure 7b, column 11, lines 28-55). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to take the apparatus disclosed by Hasegawa and add the CPU load monitoring taught by Kawahara in order to obtain an apparatus that operates more efficiently by performing optimal grouping.

Conclusion

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure:

US-6115420	09-2000	Wang, Albert S.
US-6434196	08-2002	Sethuraman et al.


US-5757421	05-1998	Kato et al.
US-5926226	07-1999	Proctor et al.
US-6549576	04-2003	Moriyoshi, Tatsuji
US-5926574	07-1999	Nishikawa et al.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dave Czekaj whose telephone number is (703) 305-3418. The examiner can normally be reached on Monday - Friday 9 hours.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chris Kelley can be reached on (703) 305-4856. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

DJC


GIMS PHILIPPE
PRIMARY EXAMINER